

Date: Monday, 3/19/2007 4:31:55 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : OH-58 SKIDTUBE
 Job Number : 31290
 Estimate Number : 11650
 P.O. Number : *NIA*
 This Issue : 3/19/2007 S.O. No. : *NIA*
 Prsht Rev. : NC
 First Issue : *NA* Type : LANDING GEAR
 Previous Run : 29221
 Part Number : D058672012
 Drawing Number : IIN D058-672 REV C
 Project Number : N/A
 Drawing Revision : C
 Material : *NIA*
 Due Date : 4/10/2007 Qty: 1 Um: Each
 Written By : *[Signature]*
 Checked & Approved By : *[Signature]*
 Comment : Est Rev:G 02.06.27 Re-format; CHG002 (MPP 2251); ECN 258K
 J
 Est Rev:H 07-03-08 As per IIN D058-672 Rev C jlm

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photo Copy Blue files and Type Labels as per PPP D058-672-012 CHG003

2.0 31290A OH-58 SKIDTUBE ASSEMBLY

Comment: Sub-Component 1 D058-672-041 OH-58 SKIDTUBE ASSEMBLY *B 31290A*

3.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

4.0 D29332 206 Saddle Right



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2933-2 Saddle *B29790* / ✓

5.0 D29322 206 Saddle Right side



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2932-2 Saddle *B29343* - / ✓*D058-672-043*Batch: *B31131* / ✓*PC 7/2/22*

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Monday, 3/19/2007 4:31:56 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: OH-58 SKIDTUBE

Job Number: 31290

Part Number: D058672012

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

D2934

Saddle Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2934 Saddle Spacer

B30451 - ✓

7.0

D2935

Saddle Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2935 Saddle Spacer

B30746 - ✓

8.0

AN341A

Bolt



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 AN3-41A Bolt

M103395 - ✓

9.0

D2652

Bushing



Comment: Qty.: 16.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch =

16 D2652 Bushing

B29332 - ✓

10.0

AN960JD10

Washer



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 AN960JD10 Washer

M103962 - ✓

11.0

MS21042L3

Nut



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 MS21042L3 Nut (or -3)

M102608 - ✓

02/4/22

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: OH-58 SKIDTUBE

Job Number: 31290

Part Number: D058672012

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

AN510A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description

Batch

4 AN5-10A

Bolt

M102328- / ✓

13.0

AN512A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description

Batch

4 AN5-12A

Bolt

M102608- / ✓

14.0

AN960JD516

Washer



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description

Batch

8 AN960JD516

Washer

M15927- / ✓

15.0

AN46A

Bolt



Comment: Qty.: 12.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description

Batch

12 AN4-6A

Bolt

M102115- / ✓

16.0

AN960JD416

Washer



Comment: Qty.: 24.0000 Each(s)/Unit Total : 24.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description

Batch

24 AN960JD416

Washer

M102929- / ✓

17.0

MS21042L4

Nut



Comment: Qty.: 12.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description

Batch

Pe 7/4/07

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Monday, 3/19/2007 4:31:56 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: OH-58 SKIDTUBE

Job Number: 31290

Part Number: D058672012

Job Number:



Seq. #

Machine Or Operation:

Description:

18.0 MS21042L4 Nut (or -4)

M103914

D2712

Set Screw



Comment: Qty.: 10.0000 Each(s)/Unit Total: 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description

Batch

10 D2712

Set Screw

B26481

19.0

D2968043

Tow Ring



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description

Batch

1 D2968-043

Tow Ring

B29353

20.0

AN960JD1016

Washer



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Washer

Batch:

M5515

21.0

AN9704

Washer



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description

Batch

1 AN970-4

Washer

M103344

22.0

MS210424

USE MS21042L4



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

USE MS21042L4

Batch:

M103914

N/A

23.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

Handwritten signatures and dates:
C2717/27
C207/04/240
C207/04/270

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: PD Date: 04/13/20
 QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Monday, 3/19/2007 4:31:56 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: OH-58 SKIDTUBE

Job Number: 31290

Part Number: D058672012

Job Number:



Seq. #:

Machine Or Operation:

Description :

24.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D058-672-012

Location: _____

PPP Rev: B

03/19/2007

25.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

03/19/2007

Job Completion



U of A 30

31290A

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

5.0 PARTS LIST

| Item | 672 -011 | 672 -012 | 672 -013 | 672 -014 | 672 -041 | 672 -043 | Part Number | Description |
|------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------------|---------------------------|
| | X | | | | | | D058-672-011 | SKIDTUBE INSTALLATION, LH |
| | | X | | | | | D058-672-012 | SKIDTUBE INSTALLATION, RH |
| | | | X | | | | D058-672-013 | SKIDTUBE INSTALLATION, LH |
| | | | | X | | | D058-672-014 | SKIDTUBE INSTALLATION, RH |
| | 1 | 1 | 1 | 1 | X | | D058-672-041 | REPLACEMENT SKIDTUBE |
| | 1 | 1 | 1 | 1 | | X | D058-672-043 | GROUND HANDLING KIT |
| 1 | | | | | 1 | | D2922-041 | SKIDTUBE ASSEMBLY |
| 2 | | | | | 20 | | D2651-1 | * PLUG |
| 3 | | | | | 20 | | D2651-3 | * O-RING |
| 4 | | | | | 1 | | D2646 | * AFT CAP |
| 5 | | | | | 2 | | MS27039-1-08 | * SCREW |
| 6 | | | | | 2 | | AN960JD10L | * WASHER |
| 7 | | | | | 4 | | D2648-3 | * WEARPAD |
| 8 | | | | | 1 | | D2648-5 (OR D2648-3) | * WEARPAD |
| 9 | | | | | 1 | | D2656-15 | * WEARSHOE |
| 10 | | | | | 1 | | D2656-21 | * WEARSHOE |
| 11 | | | | | 1 | | D2924 | * WEARSHOE |
| 12 | | | | | 50 | | MS27039-1-08 | * SCREW |
| 13 | | | | | 50 | | AN960JD10L | * WASHER |
| 14 | | | | | 50 | | AKS7-1032-130 | * INSERT |
| 20 | 1 | | 1 | | | | D2932-1 | SADDLE OUTSIDE, LH |
| 20 | | 1 | | 1 | | | D2932-2 | SADDLE OUTSIDE, RH |
| 21 | 1 | | 1 | | | | D2933-1 | SADDLE INSIDE, LH |
| 21 | | 1 | | 1 | | | D2933-2 | SADDLE INSIDE, RH |
| 22 | 1 | | | | | | D2932-1 | SADDLE OUTSIDE, LH |
| 22 | | 1 | | | | | D2932-2 | SADDLE OUTSIDE, RH |
| 22 | | | 1 | | | | D2938-1 | SADDLE OUTSIDE, LH |
| 22 | | | | 1 | | | D2938-2 | SADDLE OUTSIDE, RH |
| 23 | 1 | | | | | | D2933-1 | SADDLE INSIDE, LH |
| 23 | | 1 | | | | | D2933-2 | SADDLE INSIDE, RH |
| 23 | | | 1 | | | | D2939-1 | SADDLE INSIDE, LH |
| 23 | | | | 1 | | | D2939-2 | SADDLE INSIDE, RH |
| 24 | 2 | 2 | 2 | 2 | | | D2934 | SADDLE SPACER |
| 25 | 2 | 2 | 2 | 2 | | | D2935 | SADDLE SPACER |
| 26 | 8 | 8 | 8 | 8 | | | AN3-41A | BOLT |
| 27 | 16 | 16 | 16 | 16 | | | D2652 | BUSHING |
| 28 | 8 | 8 | 8 | 8 | | | AN960JD10 | WASHER |
| 29 | 8 | 8 | 8 | 8 | | | MS21042-3 | NUT (OR MS21042L3) |
| 30 | 4 | 4 | 4 | 4 | | | AN5-10A | BOLT |
| 31 | 4 | 4 | 4 | 4 | | | AN5-12A | BOLT |
| 32 | 8 | 8 | 8 | 8 | | | AN960JD516 | WASHER |
| 33 | 12 | 12 | 12 | 12 | | | AN4-6A | BOLT |
| 34 | 24 | 24 | 24 | 24 | | | AN960JD416 | WASHER |
| 35 | 12 | 12 | 12 | 12 | | | MS21042-4 | NUT (OR MS21042L4) |
| 36 | 10 | 10 | 10 | 10 | | | D2712 | SET SCREW |
| 40 | 1 | 1 | 1 | 1 | | | D2707-043 (OR D2968-043) | TOW RING |
| 41 | 1 | 1 | 1 | 1 | | | AN960JD1016 | WASHER |
| 42 | 1 | 1 | 1 | 1 | | | AN970-4 | WASHER |
| 43 | 1 | 1 | 1 | 1 | | | MS21042-4 | NUT (OR MS21042L4) |
| 50 | | | | | | 2 | D3046-041 | LUG BRACKET |
| 51 | | | | | | 4 | AN3-37A | BOLT |
| 52 | | | | | | 8 | D2652 | BUSHING |
| 53 | | | | | | 4 | AN960DJ10 | WASHER |
| 54 | | | | | | 4 | MS21042-3 | NUT (OR MS21042L3) |

* DENOTES THAT PART IS INCLUDED WITH D2922-041 ASSEMBLY

• COPYRIGHT © 2000 BY DART AEROSPACE USA, INC. •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

Revision: C

Date: 06.11.14

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
31290
NO.

Date: Monday, 3/19/2007 4:32:43 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : 0H-58 SKIDTUBE ASSEMBLY
 Job Number : 31290A
 Estimate Number : 10475
 P.O. Number : N/A Part Number : D058672041
 This Issue : 3/19/2007 S.O. No. : N/A Drawing Number : D2922 REV A1
 Prsht Rev. : NC Project Number : N/A
 First Issue : N/A Type : LANDING GEAR Drawing Revision : A1
 Previous Run : 31288A Material : N/A
 Due Date : 4/10/2007 Qty: 1 Um: Each
 Written By :
 Checked & Approved By : *JP 07.03.20*
 Comment : Est Rev:C 02.06.28 Re-format; ECN 258 KJ
 Est Rev:D 06.02.06 / Added Dt8025 EC

Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description:

1:0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile & type labels per PPP D058-672-041 CHG 001

2:0

D2620

Bent 206 Skidtube



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2620 Bent Tube 3" OD *B29288 DP 7-3-20*

3:0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Deburr Fwd edge of tube *DP 7-3-20*

2-Weld D2794 cap as per QSI 004 and Dwg D2922. Use aluminum rod.

A/R Aluminum Rod *M 103317/M 102421 BE 07-03-22*

3-Cut aft end of D2620 bent tube as per dwg D2922

4-Drill pilot holes using drill jig DT8480 and DT8025 open to 0.312" dia.

5-Drill holes for wearplates using DT 8487 Open to 0.297" dia.

6-Drill holes for aft cap as per Dwg. D2922 using drill jig DT 8025 Open using #6 Drill Bit

8-Remove inner indexing ridge on aft end of skidtube as per Dwg. D2922 *BE 07-03-27*

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Monday, 3/19/2007 4:32:43 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 0H-58 SKIDTUBE ASSEMBLY

Job Number: 31290A

Part Number: D058672041

Job Number:



Seq. #:

Machine Or Operation:

Description:

9-Deburr and Blow out all chips form inside the tube

BE 07-03-27

4.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



pm 07-03-27(1)



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

5.0

D2923

Web



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2923

Web

B31338

pm 07-03-28(1)

6.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Open holes to finished size as per Dwg D2922(without cutting fluid)

pm 07-03-28(1)

2-Countersink crossbolt spacer holes as per Dwg D2922(without cutting fluid)

pm 07-03-28(1)

3-Deburr and Blow out all chips from inside the tube

pm 07-03-28(1)

4-Bond D2923 web in place as per QSI 015. Ensure holes lineup

pm 07-03-28(1)

A/R

Sikaflex-291

m103561

Sikaflex expire date: 07-10-01

pm 07-03-28(1)

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/03/28

8.0

D2794

Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Qty

Part Number

Description

Batch

1 D2794

Fwd Cap

B14588

BE 07-03-22

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Monday, 3/19/2007 4:32:43 PM

User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 0H-58 SKIDTUBE ASSEMBLY

Job Number: 31290A

Part Number: D058672041

Job Number:



Seq. #:

Machine Or Operation:

Description:

9.0

D2649

Crossbolt Spacer



Comment: Qty.: 22.0000 Each(s)/Unit Total: 22.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

22 D2649

Crossbolt spacer

D-31112 BE 07-03-29

10.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Weld D2649 cross bolt spacers as per QSI 004 and Dwg D2922. (Remember to back drill each hole to 0.250" before welding the other side)

A/R

Aluminum Rod

M102421 BE 07-03-29

3-Grind welds flush as per Dwg D2922

P-07-04-080

4-Counterbore 5/16" x 0.750" deep as per Dwg D2922

P-07-04-090

11.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

12.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

13.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

JL

07-04-180

14.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

M-L

07/04/18

15.0

D26483

Wearpad



Comment: Qty.: 5.0000 Each(s)/Unit Total: 5.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

5 D2648-3

Wearpad

629777

FL

07/04/18 ①

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Monday, 3/19/2007 4:32:43 PM

User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 0H-58 SKIDTUBE ASSEMBLY

Job Number: 31290A

Part Number: D058672041

Job Number:



Seq. #:

Machine Or Operation:

Description :

16.0

D265615

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description

1 D2656-15 Wearshoe

Batch

B25694

17.0

D265621

Wearplate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description

1 D2656-21 Wearshoe

Batch

B29198

18.0

D2924

Wearshoe



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description

1 D2924 Wearshoe

Batch

B22595

19.0

MS27039108

Screw



Comment: Qty.: 50.0000 Each(s)/Unit Total : 50.0000 Each(s)

Pick:

Qty Part Number Description

50 MS27039-1-08 Screw

Batch

M102630

20.0

AN960JD10L

Washer



Comment: Qty.: 50.0000 Each(s)/Unit Total : 50.0000 Each(s)

Pick:

Qty Part Number Description

50 AN960JD10L Washer

Batch

M102832

FIR

07/04/18 (1)

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Monday, 3/19/2007 4:32:43 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 0H-58 SKIDTUBE ASSEMBLY

Job Number: 31290A

Part Number: D058672041

Job Number:



Seq. #:

Machine Or Operation:

Description :

21.0

ALS41032130

Insert



Comment: Qty.: 50.0000 Each(s)/Unit Total : 50.0000 Each(s)

Pick:

Qty Part Number Description

Batch

50 ALS4-1032-130 Insert

or (see QSI 017)

m103495

22.0

D26511

Plug



Comment: Qty.: 20.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick:

Qty Part Number Description

Batch

20 D2651-1 Plugs

B30843

23.0

D26513

O-Ring



Comment: Qty.: 20.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick:

Qty Part Number Description

Batch

20 D2651-3 O-Rings

B30815

24.0

D2646

Aft Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description

Batch

1 D2646 Aft Cap

B30119

25.0

MS27039108

Screw



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number Description

Batch

2 MS27039-1-08 Screw

m102630

FL 02/04/18 ①

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Monday, 3/19/2007 4:32:43 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 0H-58 SKIDTUBE ASSEMBLY

Job Number: 31290A

Part Number: D058672041

Job Number:



Seq. #:

Machine Or Operation:

Description :

26.0

AN960JD10L

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 AN960JD10L Washer

Batch
m/02832

52

07/04/18 ①

27.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

1-Install inserts & wearpads as per dwg D2922. Insert a drop of Sikaflex at insert hole before installing wearplates.

A/R Sikaflex-291

Sikaflex expire date: *07/10*

m/103497

2-Install O-Rings D2651-3 on plugs D2651-1 with Petroleum Jelly and install plugs as per Dwg D2922

3-Install D2646 Aft Cap and seal with Sikaflex adhesive. Clean excess adhesive

A/R Sikaflex-291

Sikaflex expire date: *07/10*

m/103497

3- Wing Walk as per Dwg D2922 and QSI 005 4.4

m/103707

Batch:

07/04/20 ①

28.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

29.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

30.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

RRP 31290

07/04/27 ①

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: PD Date: 07/04/30
 QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Monday, 3/19/2007 4:32:43 PM
User: Kira Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 0H-58 SKIDTUBE ASSEMBLY

Job Number: 31290A

Part Number: D058672041

Job Number:



Seq. #:

Machine Or Operation:

Description :

31.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

①
D07104/38

Job Completion:



u 07-04-30

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries



| | | | |
|-------------------------------|--------------------------------|--|------------------------|
| DESIGN <i>RF</i> | DRAWN BY <i>RF</i> | DART AEROSPACE USA, INC. BELLEVUE, WA | |
| CHECKED <i>[Signature]</i> | APPROVED <i>[Signature]</i> | DRAWING NO. D2922 | REV. A SHEET 1 OF 2 |
| DATE 99.10.14 | | TITLE OH-58 SKIDTUBE ASSEMBLY | SCALE NTS |
| A | 99.10.14 | NEW ISSUE | |
| A1 | <i>[Signature]</i> 01.08.20 | $\phi 0.640$ WAS $\phi 0.625$ | |

RELEASED
00.05.11 *[Signature]*

| Qty | Part Number | Description |
|-----|---|-------------------|
| X | D2922-041 | SKIDTUBE ASSEMBLY |
| * | D2600-1 | EXTRUSION |
| 1 | D2646 | AFT CAP |
| 4 | D2648-3 | WEARPAD |
| 1 | D2648-5 | WEARPAD |
| 22 | D2649 | CROSS BOLT SPACER |
| 20 | D2651-1 | PLUG |
| 20 | D2651-3 | O-RING |
| 1 | D2656-15 | WEARSHOE |
| 1 | D2656-21 | WEARSHOE |
| 1 | D2794 | CAP |
| 1 | D2923 | WEB |
| 1 | D2924 | WEARSHOE |
| 50 | AKS7-1032-130 or AKS4-1032-130 or ALS7-1032-130 or ALS4-1032-130 | INSERT |
| 52 | AN960JD10L | WASHER |
| 52 | MS27039-1-08 | SCREW |

GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) LENGTH OF D2600-1 EXTRUSION REQUIRED BEFORE BENDING = 160 INCHES.*
- 3) INSERT D2923 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- 4) USE DART DRILL TEMPLATE DT8406 TO LOCATE AND DRILL $\phi 0.297$ HOLES FOR WEARSHOE INSERTS. INSTALL AKS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL MS27039-1-08 SCREWS AND AN960JD10L WASHERS IN ALL INSERTS. SEAL WITH SIKAFLEX-241/291.
- 5) WELDING TO BE DONE PER DART QSI 004.
- 6) FINISH:
ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2923 WEB
POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 0.50 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 7) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (20 PLACES).

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 31290A

| | | |
|------------------|----------------|--|
| DESIGN RF | DRAWN BY RF |  DART AEROSPACE USA, INC. BELLEVUE, WA |
| CHECKED JA | APPROVED PJ | |
| DATE 09.10.14 | | DRAWING NO. D2922 |
| | | TITLE OH-58 SKIDTUBE ASSEMBLY |
| | | SCALE 1:20 |

NO. 99

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name Barclay Elliott
Joint Welding Procedure Tig
Part number and Job number A0586 72041 / B3 1008A

TEST WELDS REQUIRED

BASE METAL Alum WELDING PROCESS Tig
Penetration Complete ☐ Partial ☒ Single Weld ☒ Double Weld ☐
Current AC ☒ DC ☐ Backing YES ☐ NO ☒

| | Position | Vertical | Down <input type="checkbox"/> | Up <input type="checkbox"/> |
|--------------|-----------------------------|-----------------------------|-------------------------------|-----------------------------|
| Sheet Groove | 1G <input type="checkbox"/> | 2G <input type="checkbox"/> | 3G <input type="checkbox"/> | 4G <input type="checkbox"/> |
| Tube Groove | 1G <input type="checkbox"/> | 2G <input type="checkbox"/> | 5G <input type="checkbox"/> | 6G <input type="checkbox"/> |
| Sheet Fillet | 1F <input type="checkbox"/> | 2F <input type="checkbox"/> | 3F <input type="checkbox"/> | 4F <input type="checkbox"/> |
| Tube Fillet | 1F <input type="checkbox"/> | 2F <input type="checkbox"/> | 4F <input type="checkbox"/> | 5F <input type="checkbox"/> |

Crossbolt Spacer Welded into Skidtube

TEST RESULTS

Visual Pass ☒ Fail ☐
Penetration Pass ☒ Fail ☐
Crossbolt Spacer Pass ☒ Fail ☐

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

Date of Test Coupon 07/03/20

Qualifier David Auel